

CLAIMS

The invention claimed is:

1. A method of screening telephone calls using a computerized telephone call screening system, said method comprising:

establishing a preferred caller database comprising caller identifying information for preferred callers selected by a subscriber from a caller registry database, wherein said caller identifying information for each caller includes at least a private identifier;

automatically answering a telephone call placed by a caller;

interrogating said caller, wherein said computerized telephone call screening system requests from said caller at least a private identifier;

if said private identifier is not received within a predetermined period of time, initiating an unidentified caller disposition process;

if said private identifier is received,

storing said private identifier; and

searching said preferred caller database for at least said private identifier received from said caller;

if said caller is not in said preferred caller database, initiating an unpreferred caller disposition process; and

if said caller is in said preferred caller database, initiating a preferred caller disposition process.

2. The method of claim 1 wherein establishing said preferred caller database includes establishing a local preferred caller database in said computerized telephone call screening system.

3. The method of claim 1 wherein establishing said preferred caller database includes establishing a remote preferred caller database located in a caller registration system, and wherein searching said remote preferred caller database further comprises connecting to said caller registration system using said computerized telephone call screening system.

4. The method of claim 1 wherein establishing said preferred caller database comprises:

connecting to a caller registry database containing identifying information for all registered callers;

selecting at least one preferred caller from said registered caller; and

transferring to said preferred caller database said caller identifying information including said private identifier for said selected preferred callers.

5. The method of claim 1 wherein said unidentified caller disposition process and said unpreferred caller disposition process comprise one of disconnecting said telephone call and directing said telephone call to voice mail.

6. The method of claim 1 further comprising repeating the step of interrogating said caller if said caller is not in said preferred caller database.

7. The method of claim 1 wherein said preferred caller disposition process comprises announcing said telephone call based upon said caller and the time of said call.

8. The method of claim 1 wherein said preferred caller disposition process comprises establishing priority of said telephone call based on a time and date of said telephone call.

9. The method of claim 1 wherein said preferred caller disposition process comprises announcing said telephone call.

10. The method of claim 9 wherein announcing said telephone call includes at least one of announcing said public identifier of said caller and providing an audio announcement of said public identifier of said caller.

11. The method of claim 1 wherein said computerized telephone call screening system requests from said caller a public identifier unique to said caller together with said private identifier, and wherein said computerized telephone call screening system searches for a matching public identifier and a matching private identifier.

12. The method of claim 1 wherein said preferred caller disposition process comprises:

asking said caller to provide an audio message;
recording said audio message; and
playing said audio message to announce said call.

13. The method of claim 1 wherein said preferred caller disposition process comprises directing said telephone call to voice mail.

14. The method of claim '13 further comprising playing a personalized prerecorded message associated with said private identifier received from said caller.

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15. A computerized telephone call screening system comprising:

means for establishing a preferred caller database comprising caller identifying information for preferred callers selected by a subscriber, wherein said caller identifying information for each caller includes at least a private identifier;

means for answering a telephone call placed by a caller;

means for interrogating said caller, wherein said computerized telephone call screening system requests from said caller at least a private identifier;

means for storing said private identifier;

means for searching said preferred caller database for said private identifier received from said caller; and

means for disposing of said telephone call.

16. The computerized telephone call screening system of claim 15 further comprising means for deciphering said private identifiers using an encryption key prior to searching said private identifiers.

17. A computerized telephone call screening system comprising:

a data communications interface for interfacing with a data network;

a caller registration system access application for accessing a caller registry database over said data network and for selecting preferred callers from said caller registry database to establish a preferred caller database;

a telephony interface for interfacing with at least one telephone line and for answering telephone calls placed by callers; and

a call processing application for processing said telephone calls by requesting at least private identifiers and searching said preferred caller database for said private identifiers received from said callers, wherein said call processing application initiates at least one caller disposition process.

18. The computerized telephone call screening system of claim 17 wherein said preferred caller database is located in said computerized telephone call screening system.

19. The computerized telephone call screening system of claim 17 further comprising a call announcing system for announcing a call accepted by said call processing application.

20. The computerized telephone call screening system of claim 17 wherein said caller disposition process comprises an unidentified caller disposition process for unidentified callers and an unpreferred caller disposition process for callers not in said preferred caller database.

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21. A call processing application stored on a storage medium and for use in a computerized telephone call screening system, said call processing application comprising:

code for receiving at least a private identifier provided by a caller placing a telephone call, wherein said private identifier is unique to said caller;

code for storing said private identifier;

code for searching a preferred caller database for a matching private identifier; and

code for disposing of said telephone call based on whether said matching private identifier is received and found in said preferred caller database.

22. The call processing application of claim 21 wherein said code for disposing of said telephone call includes code disposing of said telephone call if said matching private identifier is not in said preferred caller database.

23. The call processing application of claim 21 wherein said code for disposing of said telephone call causes said telephone call to be announced.

24. A method of establishing a preferred caller database for use in a computerized telephone call screening system, said method comprising:

connecting a caller to a computerized caller registration system;

prompting said caller for caller identifying information including at least a private identifier selected by said caller and unique to said caller;

receiving and verifying said caller identifying information;

storing said caller identifying information in a caller registry database of registered callers;

connecting a subscriber to said computerized caller registration system;

verifying that said subscriber is allowed to access said caller registry database;

providing said subscriber with access to said caller registry database;

receiving preferred caller selections from said subscriber, wherein said subscriber selects preferred callers registered in said caller registry database; and

transferring said caller identifying information of said preferred callers selected by said subscriber to a preferred caller database.

25. The method of claim 24 further comprising encrypting said private identifiers prior to storing said caller identifying information, and transferring at least one encryption key to said preferred caller database with said caller identifying information.

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26. A computerized caller registration system comprising:

means for connecting to a caller;

means for prompting said caller for caller identifying information including at least a private identifier;

means for receiving and verifying said caller identifying information;

means for storing said caller identifying information in a caller registry database of registered callers;

means for connecting to a subscriber;

means for verifying that said subscriber is allowed to access said caller registry database;

means for providing said subscriber with access to said caller registry database;

means for receiving preferred caller selections from said subscriber, wherein said subscriber selects preferred callers registered in said caller registry database; and

means for transferring said caller identifying information of said preferred callers to a preferred caller database including said private identifiers of said preferred callers.

27. The computerized caller registration system of claim 26 wherein said means for transferring said caller identifying information of said preferred callers includes means for transferring said caller identifying information of said

preferred callers to a local preferred caller database in said telephone call screening system.

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28. A computerized caller registration system comprising:

a telephony interface for interfacing with at least one telephone line;

a caller registry database containing caller identifying information including at least private identifiers of registered callers;

a caller registration application for prompting said caller for caller identifying information including at least private identifier selected by said caller, for receiving and verifying said caller identifying information, and for storing said caller identifying information in said caller registry database;

a communications interface for interfacing with a data network;

a database access application for providing said subscriber with access to said caller registry database, for receiving preferred caller selections from said subscriber, wherein said subscriber selects preferred callers from said registered callers in said caller registry database, and for transferring said caller identifying information of said preferred callers to a preferred caller database including said private identifiers of said preferred callers.

29. The computerized caller registration system of claim 28 wherein said preferred caller database is part of said computerized caller registration system.

30. The computerized caller registration system of claim 28 wherein said database access application creates database access web pages, for accessing said caller registry database.